

Reference points in advice

(FISH510.9: Principles of utilisation: The precautionary approach)

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Designing reference points for advice - general

Basic biological reference points:

Mortality-based

- F_{MSY}
- $F_{0.1}$
- F_{max}
- F_{med}
- F_{crash}

Biomass-based

- B_{MSY}
- B_0 and variants

Precautionary reference points

	Double danger: Overfished and overfishing	Overfishing and danged of overfished	Overfishing
Flim			
	Danger of overfishing and overfished	Danger of overfishing and of overfished	Danger of overfishing
Fpa			
	Overfished		Acceptable region, in accordance with PA
		Blim	Bpa

Figure: Designing reference points for advice - general

Choices of F_{pa} , F_{lim} , F_{target} etc

Management choose F_{target} !

What if they do not?

What if management does not choose F_{pa} ?

Advice needs to be in accordance with the PA!